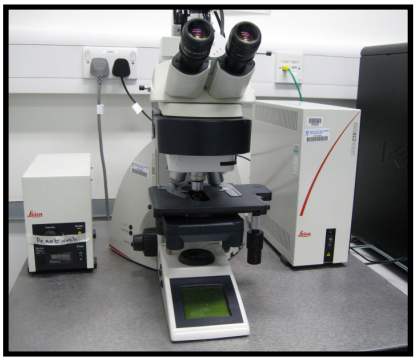
24/03/14

OPERATING INSTRUCTIONS



LEICA DM5000 epi-fl microscope

You must not operate this equipment without prior training from a BALM facility staff member.

To arrange training and for help please contact:

Facility Manager

Dr Ann Wheeler ext: 2406 a.p.wheeler@qmul.ac.uk

Microscopy Technologist

Isma Ali ext: 2407 i.ali@qmul.ac.uk

Standard Operating Procedure — Colour

How to turn the equipment on:

1. Switch on the Leica controller box
2. Switch on the computer and log in
3. Make sure the lever on the RHS of the microscope is in

How to turn the equipment off:

1. Switch off the computer
2. Switch off the Leica controller box

Rules of use:

This microscope should be treated with respect and care at all times.

This Microscope can be used by Masters, Research or PhD students, Postdocs and members of staff independently after training. MBBS and BSc students must be supervised by a member of research staff at all times.

The microscope lenses must be cleaned after every usage.

If you have any problems at all with the microscope, no matter how trivial they may seem please see a BALM facility staff memberimmediately.

REMEMBER: You have 5GB of disk space on this microscope. Check before you start if you have room for your experiment. If not, delete your old data.

1) Open **LAS** software

NB: The software takes a while to load

2) Place slide on microscope stage and choose objective lens

Objectives available:

4x, 10x, 20x, 40x (air)

40x and 63x (oil)

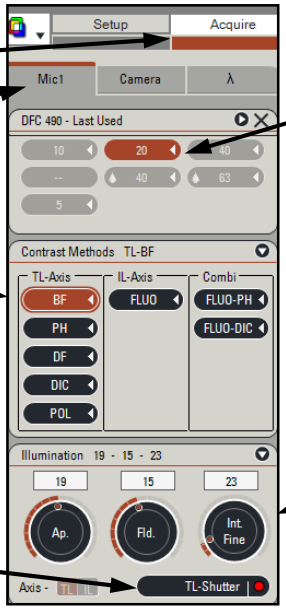
3) Make sure the rod on the RHS of the microscope is pushed in. This sends the light to the colour camera.

Move by hand, not automated

NB: please LOWER THE STAGE before changing between objectives (to avoid crashing lens onto slide)

4) Check rod on LHS is pushed IN to direct the light to the eyepiece

5) In **Acquire**, select the **Mic1** tab and **BF**



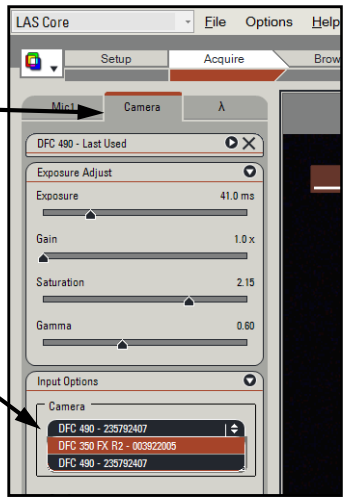
This section tells you which objective you are using

These dials control aperture, field diaphragm and light intensity, check they are not zero.

6) Open the shutter and find your sample

7) Pull OUT rod on LHS to direct light to the camera

8) In the **Camera** tab
choose the **DFC490** camera

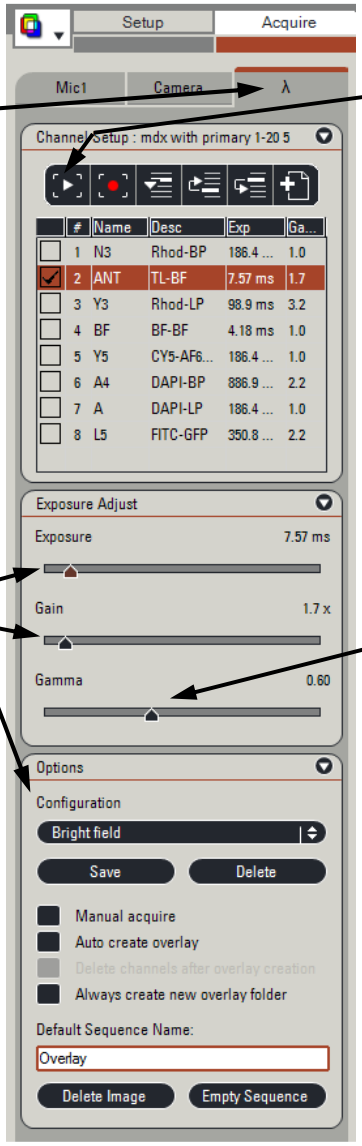


9) In the **λ** tab
select the **Bright-field** configuration

This button can be used to open and close the shutter

10) Adjust the **Exposure** and **Gain**

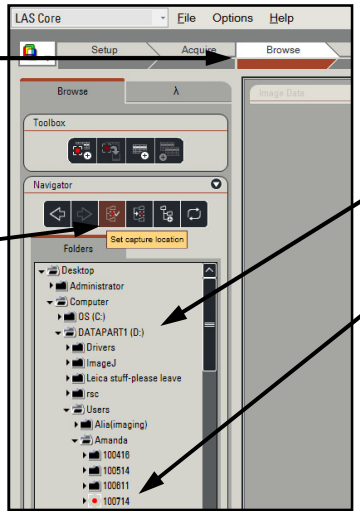
Gamma should be set at 0.6 for colour images



11) In the **Camera** tab
use **Auto white balance** on a blank area of your slide

If needed, there is an **auto exposure** tool here

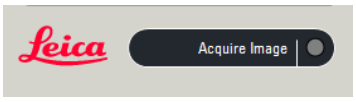
11) In the **Browse** menu, select a folder to save your data by clicking the **Set capture location** button



Data should be saved on the **D drive.**

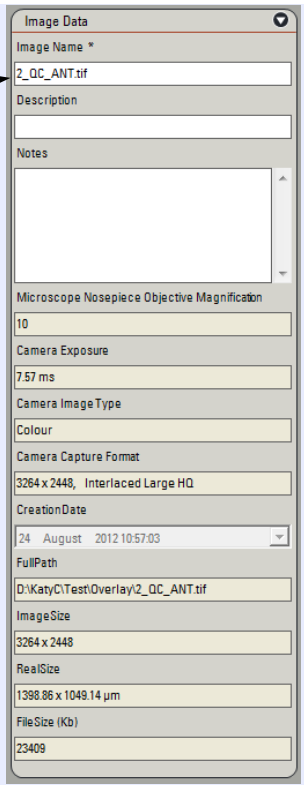
Folder selected is indicated by the red dot.

16) In the **Acquire** tab
click **Acquire Image**



In the **Browse** menu you can rename your images

↘ Type a new name in in **Image name** box and click anywhere outside the box



15) Go back to the **Acquire** menu to take the next picture

When you have finished, transfer all your data to the **Z network drive**

PLEASE TIDY UP!!
Clean lenses, throw away used tissue/lens tissue, dispose of old slides in the yellow sharps bin